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Influencing Higher Education Pedagogy through Focused Study and Peer Review

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Abstract

Much research has been published on effective instruction and the use of Universal Design principles in inclusive classrooms at the pre-collegiate level; however, faculty in higher education settings are only beginning to tackle the instructional demands of post-secondary students with diverse learning needs. Utilizing classroom peer review as a means of both faculty development and collaborative research about effective teaching holds special relevance to those new to the professoriate.

As one thinks about the upcoming Thanksgiving holiday, one might be thinking: *“It’s October and time to begin the month-long preparation for Thanksgiving for 20 very different family members and friends. I’ll need to survey all the guests for their food preferences, allergies, and dislikes and cook accordingly to keep everyone happy.”* In the same way, instructors must consider how to best “feed” the learners who will arrive in their college classrooms.

Over the past decade, a diverse student body is increasingly evident within the academy. In their analysis of trends among incoming freshmen, Pryor and colleagues (2007) note the dramatic increase of students who are non-traditional age when they first enter college (more than doubling from 13.7 to 29.6 percent over thirty years), and those who report a learning disability as more than quadrupling (from .5 to 2.8 percent) in only twenty years! The challenges faced by undergraduates who do not speak English as their primary language has been the focus of additional research (e.g. Becket, Benander, & Kumar, 2007; Zamel & Spack, 2006). This diverse student body demands effective teaching from faculty who may or may not be equipped to address students’ learning needs. Similar to many private and public institutions

nationwide, Alvernia University opens its doors to a diverse student population while upholding rigorous academic standards. *It is the equivalent of not knowing who's coming to Thanksgiving dinner!*

In exploring a solution to this dilemma during the 2010-2011 academic year, faculty from Alvernia University established a learning community and identified itself as “Addressing the Differences in All.” The promising theory of Universal Design (UD), as it may be translated practically within a diverse college classroom, became the group’s study focus.

Universal Design originally addressed accessibility in the world of architecture and product design (The Center for Universal Design, 1997) but was quickly extended beyond architecture by the Center for Applied Special Technology (2010) who first coined and now utilizes the term “Universal Design for Learning.” The CAST website (www.cast.org), under the leadership of Chief Education Officer David H. Rose, suggests that teachers can use understandings from neuroscience to promote student learning when they offer:

- Multiple means of presentation,
- Multiple means of expression, and
- Multiple means of engagement.

From architecture to neuroscience to the world of higher education, still further definition of the Universal Design concept emerged from the Center on Postsecondary Education and Disability (Scott, McGuire, & Shaw, 2003) who copyrighted their own nine additional *Principles of Universal Design for Instruction*. Furthermore, in a comprehensive reference entitled *Universal Design in Higher Education: From Principles to Practice*, Burgstahler and Cory (2008) have compiled a practical, hands-on guide that synthesizes these principles and makes Universal Design come alive in a post-secondary setting. Clearly this pedagogy which suggests

that the most effective teaching is that which pro-actively addresses the needs of the widest possible range of learners carries immediate appeal to educators at all levels.

Unfortunately, teachers are often impatient, wanting to adopt the latest innovation prematurely (Ellis, 2001); the latest innovation (especially if it appears to be rooted in other fields such as brain research) is adopted, often leapfrogging over systematic research conducted within actual classrooms. As one connection of this theory with already-validated research, Universal Design (specifically CAST's "multiple means of expression" and "multiple means of engagement") can be seen as an extension of the seminal education research efforts on effective instruction (e.g. Brophy & Good, 1986); Flanders, 1970; Rosenshine & Stevens, 1986) who connected student achievement with the concepts of academic engaged time and active participation. Despite what appears to be a possible foundation in educational research, the principles of Universal Design, especially as interpreted through active participation variables, have yet to be widely researched for their effectiveness in increasing the academic performance of post-secondary students.

At Alvernia University, a series of classroom observations have been conducted to determine if higher class participation (and presumably student performance overall) increase after application of professional development in the Universal Design pedagogy. In particular, an adjunct faculty volunteer with no prior training in teaching has been introduced to evidence-based techniques for increasing student class participation. These include the use of the following strategies, from studies which were successful with college-age populations:

- Electronic audience response systems ("clickers") (Stowell & Nelson, 2007)
- Response cards (Marmolejo, Wilder, & Bradley, 2004)
- Partner and cooperative learning groups (Johnston, Johnson, & Smith, 1991).

Because it is a goal to foster teaching effectiveness at the college level beyond one adjunct faculty member, responses to the following questions are sought:

- Is targeted professional development in a non-evaluative, coaching model part of routine mentoring that should occur in the academy, or can systematic data collection and peer review of classroom observation be crafted into a legitimate “scholarship of teaching” (Boyer, 1990) endeavor?
- What are the design elements that would make this type of scholarship legitimate and publishable in the field of higher education?
- What methods for increasing college faculty teaching effectiveness or active student class participation (in particular, those suggested by the Universal Design for Learning theory) have been researched, implemented or evaluated at other universities?

Now the Thanksgiving hostess, considering all the possibilities of Universal Design theory, may be thinking, “*Why not plan to go to any good local restaurant, where the chef will have already prepared multiple varieties of foods for diners, regardless of who shows up to eat that day?*”

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